Self-expandable metal stent in lumen-apposing metal stent (the SEMS-in-LAMS procedure): a simple salvage procedure after LAMS misplacement

Lumen-apposing metal stents (LAMs) have been widely used for drainage of pancreatic fluid collections (PFCs) [1]. However, misplacement of stents is not rare and demands immediate intervention. We describe the use of a biliary self-expandable metal stent (SEMS) placed through the LAMS to address misplacement during an endoscopic ultrasound (EUS)-guided drainage procedure. In the first case, a 24-year-old woman presenting with a symptomatic PFC (▶ Fig. 1) after an episode of moderate acute pancreatitis was referred for EUS-guided drainage. During deployment of the LAMS (3 cm × 12–15 mm; Hanaro-stent; Mitech), we accidentally released the proximal flange into the gastric wall. We pulled the stent towards the gastric lumen using a foreign body forceps, but the distal flange detached from the collection, dissecting the retroperitoneum (▶ Fig. 2). We therefore placed a guidewire into the PFC through the LAMS using a pediatric endoscope. Finally, we deployed a biliary fully-covered SEMS (10 mm × 6 cm; Hanarostent; Mitech) to connect the PFC to the stomach (▶ Video 1). Both stents were removed a month later without complications.

In the second case, a 50-year-old man presenting with a symptomatic walled-off necrosis (▶ Fig. 3) after a severe episode of pancreatitis was referred for EUS-guided drainage. During the procedure, the proximal flange was accidentally deployed into the gastric wall (▶ Fig. 4). Under EUS guidance, we introduced the sheath of the needle and a guidewire through the LAMS into the PFC. We deployed a fully-covered biliary SEMS inside the LAMS, thereby creating a communication between the PFC and the stomach (▶ Fig. 5). Both stents were removed at 1-month follow-up without complications.
The short dumbbell shape of the LAMS draws together the wall of the collection and the lumen, thereby stabilizing the stent [2]; however, this short length may favor misdeployment. Ligresti et al. [3] recently reported a LAMS-in-LAMS procedure to address a buried stent. However, a standard biliary SEMS seems more appropriate to use as it is cheaper, widely available, and longer. This is the first description of the SEMS-in-LAMS procedure as salvage therapy after LAMS misplacement.

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None